



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/525,091  | 02/23/2005  | Andreas Geyer        | Q86222              | 3266             |
| 23373   | 7590        | 11/08/2006           | EXAMINER            |                  |
| SUGHRUE MION, PLLC<br>2100 PENNSYLVANIA AVENUE, N.W.<br>SUITE 800<br>WASHINGTON, DC 20037 |             |                      | HSIAO, JAMES K      |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 3683                |                  |

DATE MAILED: 11/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/525,091

Applicant(s)

GEYER, ANDREAS

Examiner

James K. Hsiao

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 2/23/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim **15**, it claims the linear electromechanical actuator of the screw type of claim 1. The claim is broader than that of the parent claim 1, it is not clear whether it is claiming the brake system or the linear electromechanical actuator.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims **1-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ursel et al. (US 5178237) in view of Evans (US 4006802).

Regarding claim **1**, Ursel et al. discloses a system for the parking braking of a motor vehicle, comprising: at least one flexible cable (**figure 1, element 10**) for transmitting a braking operating force to at least one parking brake (**figure 1, element 29**) and a linear electromechanical actuator (**figure 1**) of the screw type,

which includes: a stationary rigid casing (**figure 1**) defining a longitudinal axis, a motor means (**figure 1, element 26**) for imparting to a rotary member (**figure 1, element 24**) a rotational movement, a tubular nut element (**figure 1, element 23**) coupled in rotation to the rotary member (**figure 1, element 24**), a longitudinal rod (**figure 1, between 24 and 33**) having a means (**figure 1, element 9**) for connection to the flexible cable (**figure 1, element 10**), a first portion(**figure 1, right of 24**) which is threaded and which co-operates with the internal thread of the nut (**figure 1, element 23**) and a second portion (**figure 1, above 36**) having a non-circular cross-section, anti-rotation means (**column 3 lines 23-25**) co-operating between the casing and the second portion of the rod.

Regarding claims 2, 3 and 4, Ursel et al discloses a check means (**fig 1, between elements 18 and 36**) in the rigid casing near the thread wherein the check means comprise a flange (**fig 1, above extruding end of rod**) and comprises a rigid transverse end wall (**fig 1, between elements 18 and 36**).

Regarding claims 5 and 6, Ursel et al discloses an anti-rotation means (**column 3 lines 23-25**) comprise at least one element arranged transversely in the casing to co-operate with at least one substantially flat surface of the second portion of the rod (**fig 1, see extruding end of rod**) and a non circular opening in the wall (**fig 1, see extruding end of rod**).

Regarding claim 7 and 8, Ursel et al. discloses a plurality of longitudinal pins (**fig 1, between elements 26 and 24**) acting between the rotary member and the nut element (**23**), wherein the longitudinal pins are carried by the rotary

member and they engage slidingly in respective longitudinal seats (**fig 1, between elements 26 and 24**) formed by the nut element.

Regarding claim 9, Ursel et al. discloses a grooved coupling (**figure 1, element 25**) between the rotary member and the nut element.

Regarding claim 14, Ursel et al. discloses a casing of the actuator comprising a more rigid portion which forms the check means (**fig 1, between elements 18 and 36**) and which is se-cured to a less rigid portion (**fig 1, top handle section**).

Regarding claim 1, Ursel lacks having an external thread co-operating with a thread fixedly joined to the casing, and an internal thread opposite the external thread.

Evans teaches an external thread (**figure 2, element 68**) co-operating with a thread fixedly joined to the casing, (**figure 2, element 66**) and an internal thread opposite the external thread. (**figure 2, element 67**)

Regarding claims 10-13, and the screw mechanism, Evans teaches trapezoidal threads (**figure 2, element 68**) and threads that are fixedly joined to the casing being formed by a bush (**figure 2, element 73**) secured to the inside of the casing (**figure 2, element 68**). Evans also teaches respective coaxial internal and external threads of the nut (**Figure 2**). It is inherent that the external and internal threads of the nut be coaxial in order to co-operate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the co-operating external and internal threads of

Evans with the screw mechanism of Ursel et al. because with the threaded member, it will not rotate when the brake is mechanically adjusted. It is also advantageous because it is a self-locking mechanism and could not be forcibly backed out to release the brake.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James K. Hsiao whose telephone number is 571-272-6259. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James S. McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/525,091

Page 6

Art Unit: 3683

JKH

  
JAMES MCCLELLAN  
SUPERVISORY PATENT EXAMINER  
11/3/06